

REMARKS

In the present Amendment, claim 1 has been amended to specify the contents of polyoxyalkylene resin acid ester and liquid paraffin, and further recite that the polyoxyalkylene resin acid ester is a polyoxyethylene rosin acid ester which has the average number of moles of ethylene oxide added to the polyoxyethylene rosin acid ester of 1 to 12 per mole of rosin acid, or a polyoxyethylene polyoxypropylene rosin acid ester which has a HLB of 2 to 13 calculated according to the following equation: $HLB = (\text{molecular weight of hydrophilic part} / \text{total molecular weight}) \times (100/5)$. These amendments are supported by the specification, at least at page 7, lines 1-2, 6-7 and 17-22; page 8, lines 4-6 and 20-22; and Examples.

In addition, claim 7 has been added. Claim 7 is further supported by the specification, at least at page 22, lines 3-7.

Claims 2-6 have been canceled.

Entry of the Amendment is respectfully requested. Upon entry of the Amendment, claims 1 and 7 will be all the claims pending in the application.

I. Response to Rejections under 35 U.S.C. § 103(a)

a. Claims 1-6 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,747,518 to Yoshikawa et al., in view of HCAPLUS abstract 1961:10180 and U.S. Patent No. 5,863,909 to Kurita et al.

Applicants respectfully submit that the present claims are patentable over the cited references for at least the following reasons.

In one embodiment of the presently claimed invention, the aqueous suspension formulation contains the following components (a), (b1), (c) and (d), or (a), (b2), (c) and (d):

(a) (RS)-N-[2-(1,3-dimethylbutyl)thiophene-3-yl]-1-methyl-3-trifluoromethyl-1H-pyrazole-4-carboxamide (i.e., penthiopyrad)

(b1) a polyoxyethylene rosin acid ester which has the average number of moles of ethylene oxide added to the polyoxyethylene rosin acid ester of 1 to 12 per mole of rosin acid

(b2) a polyoxyethylene polyoxypropylene rosin acid ester which has a HLB of 2 to 13

(c) a composition of a polyoxyalkylene resin acid ester in an aqueous suspension formulation

(d) an aqueous suspension formulation for foliar application fungicide

As described at page 4, lines 20-25 of the present specification, the above-mentioned aqueous suspension formulation provides improved rain resistance of the active ingredient on phylloplane in foliar application.

In this embodiment of the presently claimed invention, it is important to satisfy element (c) which uses a specific polyoxyalkylene resin acid ester in specific amount in order to improve rain resistance of the active ingredient and impart excellent residual effectiveness. This is further demonstrated by Examples of the present specification, wherein component (c) which uses a polyoxyalkylene resin acid ester in specific amount and the combination of components (a) to (d) are important in providing the aqueous suspension formulation recited in the present claims.

The disclosures of Yoshikawa et al., HCAPLUS abstract 1961:10180 and Kurita et al. with respect to the above-mentioned components of present claim 1 are summarized in Table 1 below.

Table 1

	Yoshikawa et al	HCAPLUS abstract 1961:10180	Kurita et al
Element (a)	Described	None described	None described
Element (b1)	None described	Described	Described
Element (b2)	None described	None described	None described
Element (c)	None described	None described	None described
Element (d)	Described	Described	None described

In particular, HCAPLUS abstract 1961: 10180 discloses only polyoxyethylene rosin acid ester and not component (b2) in the above Table 1.

As seen in the above comparison, none of the cited references disclose components (b2) and (c) recited in the present claims. Therefore, even if, *arguendo*, there might be motivation to combine the cited references, the combination still would not result in the presently claimed invention.

Regarding component (c), it was asserted that "one having ordinary skill in the art would have been motivated to formulate penthiopyrad with sufficient amounts of adjuvants such as polyoxyalkylene resin acid ester to meet the feature of applicant's claim 6 " (page 4, lines 11 to 14 of the Office Action).

Applicants respectfully disagree. Particularly, Yoshikawa et al. does not disclose using a specific polyoxyalkylene resin acid ester in specific amount. Moreover, none of HCAPLUS abstract 1961:10180 and Kurita et al. disclose or

suggest using a specific polyoxyalkylene resin acid ester in specific amount.

Therefore, it is not obvious for one of ordinary skill in the art to arrive at element (c) recited in the present claims in light of the disclosures of the cited references.

In addition, as noted above, claim 1 has been amended to recite the average number of moles of ethylene oxide, thereby excluding Comparative Example 2 in the present specification.

In view of the foregoing, Applicants respectfully submit that the present claims are not obvious over Yoshikawa et al. in view of HCAPLUS abstract 1961:10180 and Kurita et al., and thus the rejection should be withdrawn.

b. Claims 1-6 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,747,518 to Yoshikawa et al., in view of "admitted" prior art.

In another embodiment of the presently claimed invention, the aqueous suspension formulation contains the following components (a), (b3), (c) and (d):

(a) (RS)-N-[2-(1,3-dimethylbutyl)thiophene-3-yl]-1-methyl-3-trifluoromethyl-1H-pyrazole-4-carboxamide (i.e., penthiopyrad)

(b3) a liquid paraffin

(c) a composition of a liquid paraffin in an aqueous suspension formulation

(d) an aqueous suspension formulation for foliar application fungicide

As described at page 4, lines 20-25 of the present specification, this embodiment of the presently claimed invention also can provide improved rain resistance of the active ingredient on phylloplane and excellent residual effectiveness.

The descriptions of Yoshikawa et al. with respect to the above-mentioned components (a), (b3), (c) and (d) are summarized in Table 2 below.

Table.2

	Yoshikawa et al
Element (a)	Described
Element (b3)	None described *
Element (c)	None described
Element (d)	Described

*: Yoshikawa et al. generically discloses a mineral oil; however, it does not disclose a liquid paraffin. Thus, component (b3) is indicated "None described" in above Table 2.

Moreover, as shown by the comparative data in the present specification, an aqueous suspension formulation containing a liquid paraffin can provide unexpectedly superior effects compared to formulations comprising a normal paraffin and an isoparaffin (Comparative Examples 3 and 4, respectively). Specifically, this embodiment of the presently claimed invention can provide improved rain resistance of the active ingredient and have excellent residual effectiveness, as evidenced by Examples of the present specification. In particular, component (c) which uses a liquid paraffin in specific amount and the combination of components (a) to (d) are important to provide the presently claimed aqueous suspension formulation.

It was asserted that "Yoshikawa et al. clearly teach the use of liquid paraffins such as kerosine, mineral oil and other paraffin hydrocarbons" (page 7, lines 13 to 16 of the Office Action).

Applicants respectfully disagree. As known in the art, the term "liquid paraffin" is a technical term and does not contain all paraffins in liquid form. In this regard, the

present specification describes at page 8, lines 11-17, that "[t]he liquid paraffin ... contains alkyl naphthenic hydrocarbons as a main component, belongs to lubricants in view of the boiling point, and comprises a mixture of liquid saturated hydrocarbons with very high purity. The liquid paraffin is different from materials generally referred to as 'normal paraffin' and 'isoparaffin'" (emphasis added). For at least these reasons, it is inappropriate to assert that "the claimed liquid paraffin is far broader than.... in Examples 8-10" (see page 8, lines 14 to 16 of the Office Action).

In addition, a mineral oil and other paraffin hydrocarbons described in Yoshikawa et al. can contain a liquid paraffin, a normal paraffin, an isoparaffin and the like.

Therefore, Yoshikawa et al. does not disclose component (c), let alone the combination of components (a) through (d), as recited in the present claims. Moreover, it would not have been obvious for a person of ordinary skill in the art to use only liquid paraffin among various paraffins in light of the disclosures of Yoshikawa et al.

Further, with respect to component (c), it was asserted that "one having ordinary skill in the art would have been motivated to formulate penthiopyrad with sufficient amounts of liquid paraffin to arrive at the feature of applicant's claim 6" (page 8, lines 9-11 of the Office Action).

Applicants respectfully disagree. As set forth above, Yoshikawa et al. does not disclose a liquid paraffin, let alone using a liquid paraffin in specific amount.

In view of the foregoing, Applicants respectfully submit that the present claims are not obvious over Yoshikawa et al. in view of "admitted" prior art, and thus the rejection should be withdrawn.

II. Conclusion

From the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order and such action is earnestly solicited. If there are any questions concerning this paper or the application in general, the Examiner is invited to telephone the undersigned at (202) 452-7932 at his earliest convenience.

Respectfully submitted,

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By:



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